Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended:

1. (Original) A conjugate having the general structure **I**:

$$P—L—CR^1R^2—S\text{-}S—Ar—CR^3R^4—Y—X^3—R^5$$

I

wherein:

P is a hydrophilic polymer and L is a linker moiety;

R^1, R^2, R^3 and R^4 are independently selected from the group consisting of H, alkyl, aralkyl and aryl;

Ar is an aromatic group to which S-S and CR^3R^4 are linked in a configuration which promotes rapid cleavage of the CR^3R^4—Y bond, via a 1,4-, 1,6- or related elimination reaction involving the bonds of the aromatic group, following cleavage of the S-S bond;

Y is a direct bond or $-X^1-(C=X^2)-$, where X^1 and X^2 are independently O or S; and

X^3R^5 is a ligand derived from an amine-, hydroxy- or carboxyl-containing compound, such that X^3 is an oxygen or secondary or tertiary nitrogen atom.

2. (Original) The conjugate of claim 1, wherein Ar is selected from

(i) an aromatic hydrocarbon or a ring nitrogen-containing analog thereof, to which groups S-S and CR^3R^4 are linked in such a configuration that they are separated by an odd number of peripheral ring bonds;

(ii) a 5-membered heteroaromatic ring selected from 2,4-imidazolyl, 2,4-thiazolyl, 2,4-oxazolyl, 2,5-pyrrolyl, 2,5-furanyl, and 2,5-thiophenyl, and

(iii) a polycyclic aromatic group containing a 5-membered heteroaromatic ring, to which groups S-S and CR^3R^4 are linked in such a configuration that they are separated by a path containing an odd number of peripheral ring bonds, with the proviso that said path does not include an oxygen, sulfur, or trisubstituted nitrogen ring atom.

3. (Original) The conjugate of claim 1, wherein the linker moiety L is a direct bond, amine, amide, carbamate, ether, or a carbon chain, where the carbon chain may have one or more functional groups selected from amine, amide, carbamate, and ether, at either terminus of the chain or intervening between carbon atoms of the chain.

4. (Original) The conjugate of claim 2, wherein Ar is selected from 1,2-phenyl, 1,4-phenyl, 1, 7-napthyl, 2,9-anthracyl, and 4,5-phenanthracyl.

5. (Original) The conjugate of claim 4, wherein Ar is selected from 1,2-phenyl and 1,4-phenyl.

6. (Original) The conjugate of claim 1, wherein Y is O(C=O), and the ligand is derived from an amine-containing compound.

7. (Original) The conjugate of claim 1, wherein R^1 is H and R^2 is selected from the group consisting of CH_3, C_2H_5 and C_3H_7.

8. (Original) The conjugate of claim 1, wherein the ligand is derived from a polypeptide, an amine-containing drug, or an amine-containing lipid.

9. (Original) The conjugate of claim 8, wherein the amine-containing lipid is a phospholipid having a double hydrocarbon tail.

10. (Original) The conjugate of claim 1, wherein each of R^1 and R^2 is alkyl.

11. (Original) The conjugate of claim 1, wherein the hydrophilic polymer P is selected from the group consisting of polyvinylpyrrolidone, polyvinylmethylether, polymethyloxazoline, polyethyloxazoline, polyhydroxypropyloxazoline, polyhydroxypropyl-methacrylamide, polymethacrylamide, polydimethyl-acrylamide, polyhydroxypropylmethacrylate, polyhydroxyethylacrylate, hydroxymethylcellulose, hydroxyethylcellulose, polyethylene glycol, polyaspartamide, copolymers thereof, and polyethylene oxide-polypropylene oxide.

12. (Original) The conjugate of claim 11, wherein P is polyethylene glycol.

13. (Original) The conjugate of claim 12, wherein R^1 is H and R^2 is CH_3, C_2H_5, or C_3H_7.

14. (Original) The conjugate of claim 1, wherein the ligand is derived from a polypeptide.

15. (Original) The conjugate of claim 14, wherein the polypeptide is a recombinant polypeptide.

16. (Original) The conjugate of claim 11, wherein the polypeptide is a recombinant polypeptide.

17. (Original) The conjugate of claim 14, wherein the polypeptide is a cytokine.

18. (Original) The conjugate of claim 14, wherein the polypeptide is selected from the group consisting of interferons, interleukins, growth factors, erythropoietin, and enzymes.

19. (Original) The conjugate of claim 14, comprising multiple hydrophilic polymers attached to said polypeptide, each by a linkage represented by L—CR^1R^2—S-S—Ar—CR^3R^4—Y in structure I.

20. (Original) The conjugate of claim 11, wherein said hydrophilic polymer includes a targeting moiety at its free terminus.

21-76. (Canceled)